**Grade 5 Science Mid-Term Exam Study Guide**

**Remember, this is a “practice” exam and each part will count as a test grade for second quarter.**

**Part One – Scientific Method and Sound**

1. **Scientific Method –** you need to refer to your **notes**.

* Explain the steps taken in scientific methods.
* Distinguish between observations and inferences.
* Compare and contrast scientific variables and constants
* Explain how a control is used during an experiment

1. **Sound** - Use you class **notes** for studying the section on Sound. We had a **handout** from a textbook regarding sound and hopefully you have saved that reading. Read through the material again.

* What is sound?
* How is sound produced?
* How does sound travel?
  + Changing how sound travels
* What is pitch?
  + Changing pitch
* What is volume?
  + Changing volume
* What is echolocation?

You need to know the **definitions** of: sound wave, medium, vacuum, absorption, frequency, pitch, amplitude, echolocation, etc.

**Part Two – Light, Color, and Metric System**

We used the Red SRA Science book for this topic. Again, use your class notes as your primary source of information for studying.

1. Read pp. **C4 – C8** and become familiar with the following Concepts and Vocabulary terms:

***Vocabulary***: waves, wavelength, amplitude, electromagnetic waves, and frequency.

***Concepts***:

* 1. What are some different uses of electromagnetic waves?
  2. What is visible light?

1. Read pp. **C14 – C25** and become familiar with the following Concepts and Vocabulary terms:

***Vocabulary***: transparent, opaque, translucent, reflection, angle of incidence, and refraction.

***Concepts***:

* 1. Describe how transparent, opaque and translucent materials affect the light going through them.
  2. Describe how reflection works
  3. How are ***refraction*** and ***reflection*** different?
  4. What are lenses? Name 2 types of lenses.
  5. What is the difference between a ***concave*** and a ***convex*** lens?
  6. What type of lens magnifies objects? Which type of lens allows us to see far into space?
  7. What colors are in white light?

1. **Metric System –** you need to refer to your notes and handouts regarding the metric system.

* Define: length, volume and mass
* Identify the numerical value of the following prefixes: kilo-; centi- and milli- Remember that there are 3 other prefixes that exist but are rarely used: hecto-(100x), deca- (10x) and deci- (1/10th).
* Be able to convert: grams to kilograms; millimeter to kilometer; kilogram to milligram; and other combinations
* Identify the SI units of:
  + **Length** – meter (base unit); kilometer, centimeter and millimeter.
  + **Volume** – liter (base unit); milliliter and cubic centimeter (cm3)
  + **Mass** – gram (base unit); kilogram, centigram and milligram
* Identify the methods by which these measurements are taken:
  + Meter stick
  + Graduated cylinder
  + Triple-beam balance

**Finally**, l**ocate past quizzes, review sheets and tests to study.**